

REMARKS

The Office action of September 9, 2004 has been received and its contents carefully noted.

FIGs. 1-5 have been amended. In FIG. 1, reference numerals 111' and 112' have been added to designate an outermost alignment mark and outermost cutting marks, respectively, and further reference numerals 111 and 112 have been added to designate further alignment marks and cutting marks, respectively. In FIGs. 1-5, solid lines have been changed to broken lines to indicate cutting tracks 101, 102.

The objection to the specification is noted. Applicants have amended the specification for clarity to expedite prosecution of the case.

The specification and corresponding drawings have been amended for clarity. No new matter has been added as these amendments were made solely for clarity. Support for these amendments may be found, for example, in FIGs. 1-5 and on page 1, lines 9-26, and page 2, lines 1-11 of the specification. Further, these amendments do not alter nor change the scope of the appended claims by trying to distinguish the prior art.

Claims 7, 9-12, and 14 are pending in the application. Claim 7 has been amended. Claim 14 has been added without the addition of any new matter. Support for the new claim 14 may be found, for example, in FIGs. 2-5 and on pages 4-6 of the specification.

Claims 7, and 9-11 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Roberts (U.S. Patent No. 6,321,739). Claim 12 stands rejected under § 103(a) as being unpatentable over Roberts and Drussel et al. ("Drussel") (U.S. Patent No. 6,047,470). Applicants respectfully traverse these rejections, and request allowance thereof for the following reasons.

The Claims are Patentable Over the Cited References

Claims 7, and 9-11 are not anticipated by Roberts

Claims 7, and 9-11 stand rejected under § 102(e) in view of Roberts. Roberts

fails to disclose the features recited in these claims such as cutting the substrate strip, wherein cutting error that results from each substrate area will not accumulate to the subsequent substrate areas in the substrate strip.

In contrast, Roberts discloses a fixture 40 for mounting substrates 20 to be diced into individual substrate dies, but makes completely no mention of cutting error not accumulating for subsequent substrate dies being cut from the substrate as recited. (see FIGs. 1, 3-6; Abstract; col. 2, lines 40-54). Instead, Roberts follows the prior art method as discussed in the current specification (see FIG. 1; pages 1-2 of the current application) of setting up alignment marks (segments 24) and cutting marks (cutting saw alignment marks 36), but making no allowance for not accumulating cutting which results from subsequent cutting of each substrate area as recited.

Also, Roberts solely mentions that the substrate 20 is diced along predetermined grooves 46, 48 of fixture 40 using cutting saw 17, but completely omits any mention of dicing the substrate 20 along cutting saw alignment marks 36. Therefore, Roberts cannot cut the substrate 20 along the predetermined grooves 46, 48 of fixture 40 after the substrate 20 has undergone different shrinkage. Particularly, the presently claimed invention can adjustably position the saw machine in each of the substrate areas by corresponding alignment marks to avoid the error of each of the substrate areas from accumulating to subsequent substrate areas during the next substrate sawing process, despite each of the substrate strips having unpredictable shrinkage caused by returning from high temperature to normal temperature.

Further, Roberts disclosure primarily relates to the improved fixture that may be reused and helps to reduce the number of manufacture steps for cutting the individual dies, but makes no mention of not accumulating cutting error as recited.

There is a significant difference between using an improved, reusable fixture that follows the same prior art method of accumulating cutting error for subsequent substrates that are diced as disclosed by Roberts in contrast to not accumulating cutting error for subsequent substrates areas by adjustably repositioning the saw machine for each subsequent areas by corresponding alignment marks despite unpredictable

shrinkage as recited.

Roberts makes no mention of the recited feature of cutting along the cutting tracks after the substrate strip has different shrinkage making the claimed invention patentably distinct and non-obvious from the cited references. It is respectfully submitted that the rejection be withdrawn.

Claim 12 is not made obvious by Roberts and Drussel

Claim 12, dependent upon Claim 7, stands rejected under § 103(a) in view of Drussel. As implicitly admitted in the Action, Drussel is solely used to allegedly teach the Claim 12 recited feature of juxtaposing two substrate strips for simultaneous cutting. Thus, Drussel makes completely no mention of the recited feature of the independent claim 7, namely cutting the substrate strip, wherein cutting error that results from each substrate area will not accumulate to the subsequent substrate areas in the substrate strip. It is respectfully submitted that the rejection be withdrawn.

New Claim 14 is not anticipated nor made obvious by the cited references

For reasons similar to the above observations, new claim 14 is patentably distinct and non-obvious from the cited references.

Conclusion

In view of the amendments and remarks submitted above, it is respectfully submitted that all of the remaining claims are allowable and a Notice of Allowance is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayments to Deposit Account No. 02-0200 for any additional fees required under 37 C.F.R. § 1.16 or 1.17; particularly, extension of time fees.

Application No.: 09/394,918
Examiner: O. Flores-Sanchez
Art Unit: 3724

The Examiner is invited to contact the undersigned at (703) 683-0500 to discuss the application.

Respectfully submitted,



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01-05-05 amendment.wpd

DRAWINGS AS AMENDED

FIGs. 1-5 have been amended on attached amended drawing sheets 1-2 which replace original drawing sheets 1-2 including FIGs. 1-5. In FIG. 1, reference numerals 111' and 112' have been added to designate an outermost alignment mark and outermost cutting marks, respectively, and further reference numerals 111 and 112 have been added to designate further alignment marks and cutting marks, respectively. In FIGs. 1-5, solid lines have been changed to broken lines to indicate cutting tracks 101, 102.

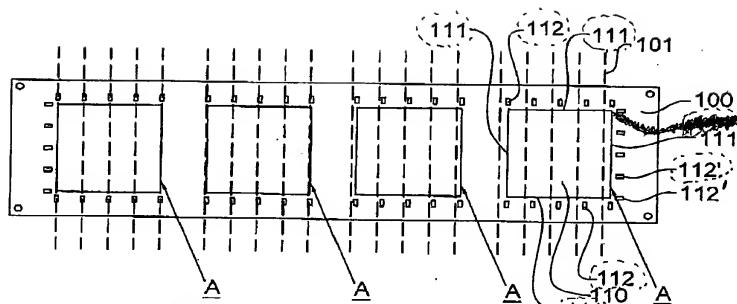


FIG. 1 (PRIOR ART)

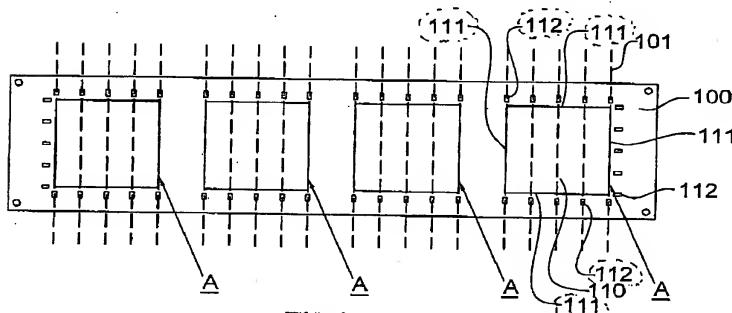


FIG. 2

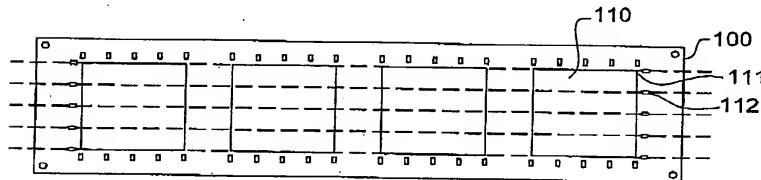


FIG. 3